

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [25] with the following rewritten paragraph.

The present invention provides a convenient technique to interface a plurality of gas sensing technologies to a common Host System by means of a single interface unit. More specifically, one embodiment of the present invention contemplates providing an interface unit that is adapted to couple to any type of Gas Measurement System, i.e., mainstream or sidestream. An output of the interface unit is coupled to a Host System. In this manner, the interface unit allows virtually any type of Gas Measurement System to communicate with a common Host System. FIG. 1 and 2 schematically illustrate two configurations of conventional Gas Measurement Systems that can be connected to such an interface unit. FIG. 3 schematically illustrates and FIG. 4 is a perspective view of another embodiment of a mainstream Gas Measurement System ~~50-60~~ adapted to be coupled to the interface unit.

Please replace paragraph [26] with the following rewritten paragraph.

As shown in FIGS. 3 and 4, mainstream Gas Measurement System ~~50-60~~ includes a Sample Cell 10 disposed in breathing circuit 12 such that gas delivered to and/or received from the patient, as indicated by arrow A, passes through the Sample Cell. As with a conventional mainstream system, a Gas Sensor, generally indicated at ~~52~~50, is coupled to the Sample Cell. Gas Sensor 50 includes components, such as source 16 and detector 18, necessary to produce a detected signal 54 indicative of the concentration of a gas constituent in the gas sample in the Sample Cell. Unlike the conventional mainstream Gas Measurement System shown in FIG. 1, a Gas Monitor 22 is incorporated into the same housing 56 containing the Gas Sensor. Gas Monitor 22 includes processing elements that convert the detected signal from the Gas Sensor

into a value, such as transmittance, that is used to produce an indication of the concentration of a particular gas constituent in the gas sample within the Sample Cell. This value indicative of the concentration of the gas under analysis is provided to a Host System 24 via a communication link 58. The Host System uses this information from Gas Monitor 22 in the same manner as a Host System associated with a conventional mainstream or sidestream Gas Measurement System.